IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

ATTY. 'S DOCKET: 2001 P 14591 US

Applicant.: Peter Wrschka et al.	)	Examiner: Not Yet Assigned
Serial No.: Not Yet Assigned	)	Art Unit: Not Yet Assigned
Filed: On Even Date Herewith	)	
Title: INTEGRATION SCHEME FOR METAL GAP FILL, WITH FIXED ABRASIVE CMP	)	

INFORMATION DISCLOSURE STATEMENT UNDER 37 C.F.R.§ 1.97 AND 1.98

Honorable Commissioner of Patents and Trademarks
Box Patent Applications
Washington, D.C. 20231

Sir:

It is respectfully requested that the citations listed below be considered by the Patent and Trademark Office and made of official record in the above-identified application.

In the opinion of the undersigned, the below-listed citations represents the closest art known to the undersigned during the preparation of the above-identified application. This citation may be material to the examination of the subject application and is therefore submitted in compliance with the duty of disclosure defined in 37 C.F.R.§ 1.56 and 1.97.

A concise explanation of the relevance of the pertinent listed citations are set forth below.

CONCISE EXPLANATION OF THE RELEVANCE OF THE PERTINENT LISTED CITATIONS

U.S. Patent 5,958,794 is deemed pertinent for its disclosure of a method of modifying a processed semiconductor wafer containing topographical features. The method entails:

(a) contacting an exposed surface of the semiconductor wafer with a three-dimensional, textured, fixed abrasive article comprising a plurality of abrasive particles and a binder arranged in the form of a pattern; and

(b) relatively moving the wafer and the fixed abrasive article in the presence of a liquid medium to chemically and mechanically modify the surface of the wafer.

U.S. Patent 6,007,404 is deemed pertinent for its disclosure of a method of modifying an exposed surface of a semiconductor wafer comprising:

(a) contacting the surface with an abrasive construction comprising a three-dimensional, fixed abrasive element having raised portions and recess portions, wherein the raised portions comprises abrasive particles and binder; at least one resilient element coextensive with the fixed abrasive element; and at least one rigid element coextensive with and interposed between the resilient element and the fixed abrasive element; wherein the rigid element has a Young's Modulus greater than that of the resilient element; and

(b) relatively moving the wafer and the abrasive construction to modify the surface of the wafer.

U.S. Patent 6,234,875 is deemed pertinent for its disclosure of a method of modifying a surface of a semiconductor wafer and comprises:

(a) contacting the surface to be modified with a working surface of an abrasive article, the working surface comprising a phase separated polymer having a first phase and a second phase, the first phase being harder than the second phase; and

(b) relatively moving the surface to be modified and the abrasive article to remove material from the surface to be modified in the absence of an abrasive slurry.

U.S. Patent 6,325,702 is deemed pertinent for its disclosure of a method for chemical-mechanical-polishing (CMP) to selectively remove a first material over a second material, wherein said first material and said second material form part of a substrate assembly. The method comprises:

selecting a pad configured to remove the first material more rapidly than the second

material, the pad being formed at least in part of an intrinsically non-porous material with respect to CMP solution particles to be used therewith, the pad formed with spaced-apart contact portions;

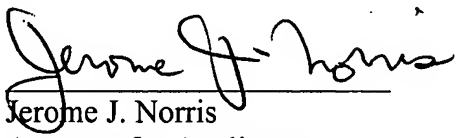
the contact portions separated by at least one non-contact portion, the contact portions formed of the intrinsically non-porous material to provide a surface to contact the substrate assembly during CMP, the contact portions spaced-apart to provide a duty cycle, the duty cycle determined at least in part by:

selecting a contact width for the contact portions based at least in part on the CMP solution, the first material, and the second material;

selecting a non-contact width associated with spacing of the contact portions, the non-contact width selected based at least in part on the CMP solution, the first material, and the second material; placing the pad on a chemical-mechanical-polisher platform; providing the CMP solution to the pad; and polishing the substrate assembly using the pad and the CMP solution.

This Disclosure Statement under 37 C.F.R. § 1.56 and 1.97 is not construed to the effect that no other material information as defined in 37 C.F.R. § 1.56(c) exist, or that this citation constitutes prior art under U.S.C. 102 and 103.

Respectfully submitted,



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February 28, 2002

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Form PTO-1449 (REV. 8-83) U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE	ATTY. DOCKET NO.	SERIAL NO.
INFORMATION DISCLOSURE CITATION *(Use several sheets if necessary)*	2001 P 14591 US	Not Yet Assigned
INTEGRATION SCHEME FOR METAL GAP FILL, WITH FIXED ABRASIVE CMP	APPLICANT Wrschka et al.	EXAMINER Not Yet Assigned
	FILING DATE February 28, 2002	GROUP Not Yet Assigned

U. S. PATENT DOCUMENTS

Examiner INITIAL	REF	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE IF APPROPRIATE
		5,958,794	Sep. 28, 1999	Bruxvoort et al.	438	692	
		6,007,404	Dec. 28, 1999	Rutherford et al.	451	41	
		6,234,875 B1	May. 22, 2001	Pendergrass, Jr.	451	41	
		6,325,702	Dec. 5, 2001	Robinson	451	41	

FOREIGN PATENT DOCUMENTS

	REF	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION YES	TRANSLATION NO

OTHER DOCUMENTS *(Including Author, Title, Date, Pertinent Pages, Etc.)*

EXAMINER	DATE CONSIDERED

***EXAMINER: Initial if citation considered, whether or not citati n is in conf rmanc with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.**